

Please amend the application as follows:

IN THE CLAIMS:

CLEAN VERSION OF THE AMENDED CLAIMS

I 1. (previously presented) A built-up camshaft comprising a pipe coated by a jointing coating on an outer cylindrical surface and an inner cylindrical surface and having an outer pipe diameter and an inner pipe diameter and having cam places, bearing ring places and pipe end places;

cams formed as rings with an outer cylindrical flange and an inner cylindrical flange and provided with the jointing coating on an inner cylindrical surface of the inner cylindrical flange and positioned at the cam places and bearing rings provided with the jointing coating on inner surfaces being in contact with the pipe and positioned at the bearing ring places and end pieces provided with the jointing coating on outer cylindrical surfaces and having an outer end pieces diameter bigger than the inner pipe diameter, wherein the jointing coating of the pipe and the jointing coating of the cams, the bearing rings and the end pieces create durable joints between the pipe and the cams, the bearing rings and the end pieces and wherein the surface coating prevents a tribocorrosion and increases load capacity as compared to bare compression joints.

2. (previously presented) The built-up camshaft according to claim 1, wherein the jointing coating is a joint-stable conversion coating.

3. (previously presented) The built-up camshaft according to claim 1, wherein the jointing coating is a cement coating.

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4. (previously presented) The built-up camshaft according to claim 1, wherein at least one of the pipe, the cams, the end pieces, the bearing rings are made out of one of the group of metal, ceramics, plastics by one of cutting, non-cutting, milling, forging in at least one of massive and profiled form.

5. (previously presented) The built-up camshaft according to claim 1, wherein the outer cylindrical surface and the inner cylindrical surface of the pipe is at least partially mechanically machined.

6. (previously presented) A built-up camshaft comprising

a pipe coated with a crystalline phosphate coating on an outer cylindrical surface and on an inner cylindrical surface and having an outer pipe diameter and an inner pipe diameter;

cams and bearing rings and end pieces having an outer diameter bigger than the inner pipe diameter and connected by means of compression joints to the pipe and provided with the crystalline phosphate coating on surfaces being in contact with the pipe, wherein the crystalline phosphate coating prevents a tribocorrosion and increases load capacity as compared to compression joints and creates stable joints between the pipe and the cams, the bearing rings and the end pieces.

7. (previously presented) A built-up camshaft comprising a pipe coated by a cement on an outer cylindrical surface and an inner cylindrical surface and having an outer pipe diameter and an inner pipe diameter;

cams and bearing rings and end pieces having an outer diameter bigger than the inner pipe diameter and connected by means of compression joints to the pipe and provided with the cement on surfaces being in

contact with the pipe, wherein the cement prevents a tribocorrosion and increases load capacity as compared to compression joints.

8. (previously presented) A method for building a camshaft comprising

making a pipe having an outer pipe diameter and an inner pipe diameter;

coating the pipe with a jointing coating on an outer cylindrical surface and on an inner cylindrical surface;

making cams in form of rings with an outer cylindrical flange and an inner cylindrical flange and having a cam opening diameter smaller than the outer pipe diameter;

coating cams with the jointing coating on surfaces to be placed in contact with the pipe;

making bearing rings having an inner bearing ring diameter smaller than the outer pipe diameter;

coating the bearing rings with the jointing coating on surfaces to be placed in contact with the pipe;

making end pieces having an outer end piece diameter smaller than the inner pipe diameter;

coating the end pieces with the jointing coating on surfaces to be placed in contact with the pipe;

connecting the cams, the bearing rings, and the end pieces by means of compression joints to the pipe;

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and allowing the jointing coating to create stable joints between the pipe and the cams, the bearing rings and the end pieces by hardening the jointing coating.

9. (previously presented) A built-up camshaft comprising
a pipe coated with a crystalline phosphate coating on an outer cylindrical surface and having an outer pipe diameter;
a cam having an inner diameter larger than the outer pipe diameter and connected by means of a compression joint to the pipe and provided with the crystalline phosphate coating on surfaces being in contact with the pipe, wherein the crystalline phosphate coating prevents a tribocorrosion and increases load capacity as compared to compression joints without coating and creates a stable joint between the pipe and the cam;
a bearing ring having an inner diameter larger than the outer pipe diameter and connected by means of a second compression joint to the pipe and provided with a second crystalline phosphate coating on surfaces being in contact with the pipe, wherein the second crystalline phosphate coating prevents a tribocorrosion and increases load capacity as compared to compression joints without coating and creates a stable joint between the pipe and the bearing ring;
an end piece having an inner diameter larger than the inner pipe diameter and connected by means of a third compression joint to the pipe and provided with a third crystalline phosphate coating on surfaces being in

contact with the pipe, wherein the third crystalline phosphate coating prevents a tribocorrosion and increases load capacity as compared to bare compression joints and creates a stable joint between the pipe and the end piece.

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10. (previously presented) A built-up camshaft comprising an elongated part having an outer cylindrical surface;
a cam connected by means of a longitudinal compression joint to the elongated part, wherein the cam is covered with a joint-stable surface coating, and wherein the surface coating prevents a tribocorrosion and increases the load capacity as compared to compression joints;
a bearing ring connected by means of a second longitudinal compression joint to the elongated part, wherein the cam is covered with a second joint-stable surface coating, and wherein the surface coating prevents a tribocorrosion and increases the load capacity as compared to compression joints;
an end piece connected by means of a third longitudinal compression joint to the elongated part, wherein the cam is covered with a third joint-stable surface coating, and wherein the surface coating prevents a tribocorrosion and increases the load capacity as compared to compression joints.

11. (previsouly presented) The camshaft according to claim 10,

wherein

the coating (2, 5) is a metal coating or a cement coating.

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cont 12. (previously presented) The camshaft according to claim 10,

wherein

the pipe, the cams, the end pieces, the bearing rings, and the other parts are made out of metal, ceramics, plastics or other materials, by cutting or non-cutting, by milling or forging in massive or profiled form.

13. (previously presented) The camshaft according to claim 1, wherein an outer jacket face of the pipe or of the solid rod has a drawn quality or is completely or partially mechanically machined.

14. (previously presented) The camshaft according to claim 10,

wherein the elongated part having an outer cylindrical surface is a pipe.

15. (previously presented) The camshaft according to claim 10,

wherein the elongated part having an outer cylindrical surface is a solid rod.

16. (previously presented) A built-up camshaft comprising

a pipe,

cams,

bearing rings,

end pieces, and

other parts, wherein the cams (3), the end pieces (6), the bearing rings, and the other parts are connected by means of longitudinal compression joints to the pipe, wherein the parts to be connected are provided with a suitable surface coating, and wherein the surface coating prevents a tribocorrosion and increases the load capacity as compared to non-coated compression joints.

17. (presently amended) A built-up camshaft comprising

a solid rod,

cams,

~~obearing~~ bearing rings,

end pieces, and

other parts, wherein the cams (3), the end pieces (6), the bearing rings, and the other parts are connected by means of longitudinal compression joints to the pipe, wherein the parts to be connected are provided with a suitable surface coating, and wherein the surface coating prevents a tribocorrosion and increases the load capacity as compared to non-coated compression joints.

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18. (previously presented) Camshaft comprising a cylindrical tube, cam and end pieces characterized in that the cylindrical tube has a tube length of from about 100 mm to 1500 mm, an outer diameter of from about 10 mm to 100 mm, and a wall thickness from about 0.5 mm to 10 mm, and is furnished with a fine crystalline compound stable phosphate layer and wherein the thickness of the fine crystalline compound stable phosphate layer amounts to from about three micrometers to 10 micrometers and wherein the cams are pressed with the inner diameter onto an outer diameter of the cylindrical tube furnished with the fine crystalline compound stable phosphate layer, and wherein the end pieces are pressed with the outer diameter into an inner diameter of the cylindrical tube furnished with the fine crystalline compound stable phosphate layer.

19. (previously presented) Camshaft according to claim 18 characterized in that

the end pieces are pressed with their inner diameter onto the outer diameter of the cylindrical tube furnished with the fine crystalline compound stable phosphate layer.

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20. (previously presented) Camshaft according to claim 18 characterized in that

bearing rings are pressed with their inner diameter onto the outer diameter of the cylindrical tube furnished with the fine crystalline compound stable phosphate layer.

21. (new) The built-up camshaft according to claim 16, wherein an outer cylindrical surface and an inner cylindrical surface of the pipe is at least partially mechanically machined.